

National Weather Service
Lincoln, Illinois

Central Illinois Lincoln Logs

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Severe Weather Spotters: On the Front Line of Storms

by: Chris Miller, Warning Coordination Meteorologist

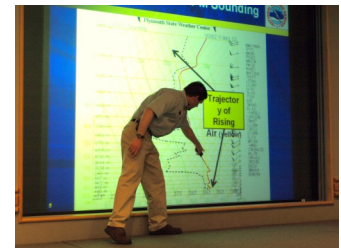
A dedicated group of volunteers, from all walks of life, are in central and southeast Illinois communities helping the National Weather Service warn their neighbors of hazardous weather. They are severe storm spotters. Their timely severe storm spotter reports play a major role in the warning process. This year from mid-February into April, more than 2,000 people attended spotter training classes in central and southeast Illinois – nearly 800 of which were new. Let's take a look at how these volunteers became storm spotters, and the importance of their information to warning communities of dangerous weather.

Many storm spotters start out with an interest or fascination with the weather – particularly severe thunderstorms and tornadoes. Some spotters I have spoken to only have a passing interest in the weather, but have a deep feeling of wanting to help keep people safe in

or near their community.

The next step to being a storm spotter is to attend a severe storm spotter training class. This is where new spotters and veteran spotters come to learn – or review – the latest information regarding detection of severe weather features. They are taught what to look for in the clouds, and the clues that a thunderstorm may be producing damaging winds or a tornado. What to report, how to report and who to report to is also covered. Most importantly, though, spotters are given safety techniques. Whether they are spotting from home, work or mobile (deployed to a location in their vehicle), safety in the elements – such as lightning, large hail, flooding, high winds and tornadoes – is stressed. The ultimate goals are to report efficiently for the notification of local communities, while staying as far out of harm's way as possible.

These spotter training



Meteorologist Patrick Bak conducts a storm spotter training class in Springfield in 2008.

classes are conducted each year in central and southeast Illinois, between mid-February and early April, so that all of the spotters can receive the training prior to the peak of our severe weather season – which is in April, May and June. The training classes are usually hosted by county or local emergency management groups (EMA or ESDA), and sometimes local fire protection districts. The training classes require about 2 to 3 hours of time, but have no cost. Anyone can attend the training classes, but to be considered a storm spotter, you must be at least 18 years of age. More details, resources for spotters, and

cont. on page 2

New Staff Members at ILX

Two new staff members have joined the WFO Lincoln team so far this year.

Kyle Clark (left) is our new Electronics Technician. He began at ILX in January, after working for the Federal Aviation Administration in Elgin, IL. Kyle replaces Ken Hunter, who retired last fall.

Eric Laufenberg (right) is our new Meteorologist Intern. Eric began at ILX in mid February. He previously had been working for the U.S. Army at the Dugway Proving Ground in Utah for the last 7 years. Eric received his meteorology degree from the University of Oklahoma. Eric replaces Dan Kelly, who transferred to the NWS office in Buffalo, NY, at the beginning of the year.



Severe Weather Spotters *(continued from page 1)*

spotter training schedules can be found on our web page at: <http://www.crh.noaa.gov/ilx/?n=spotter>

Attending a spotter class begins the process – but it is definitely not the end. New spotters are encouraged to partner with other spotters who have “field experience”. Like many other things in life, the best way to learn is through hands-on work and experience. Since most of the spotter groups in central and eastern Illinois are acti-

vated and organized by local emergency management agencies, spotters are also encouraged to volunteer with, and report to, their local or county EMA or ESDA office. Contact your local EMA or ESDA office for more information.

Reports from severe storm spotters play a vital role in warning communities of impending hazards. Detailed spotter reports in warnings and statements from the NWS, are relayed to local media outlets, weather alert radios, and mobile

devices to inform people of the impending hazards. Spotter reports also play a large role in local, emergency decision making, such as sounding sirens, deploying rescue operations quickly, or activating phone trees to critical facilities. So, the next time you hear about the potential for severe storms or warnings are being issued for your area, remember – there are dedicated volunteers in your community who are out on the frontlines of the storms, keeping all of us informed.

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Technical Staff at WFO Lincoln

by: Ed Martin, Electronic Systems Analyst

At the National Weather Service in Lincoln there is a great deal of sophisticated electronics and computer equipment. At Lincoln there are 4 members on our technical team. We have two electronic technicians and two information technology specialists.

Our two electronic technicians are responsible for maintaining, calibrating, and modifying the electronic equipment. At the local office they take care of the weather radar, upper air equipment, NOAA Weather Radio (NWR) Console Replacement System (CRS), office computers and assist with general facilities issues. They also maintain equipment at remote locations. There are six Automated

Surface Observing Systems (ASOS) that require regular calibrations and an occasional repair visit. The ETs maintain a Wind Profiler in Winchester, that uses phased array radar technology. They also assist with the maintenance of nine NWR transmitters. Our technicians do a fantastic job ensuring that the staff has the equipment available when it is needed most.

Our two Information Technology (IT) specialists share responsibility for maintaining the IT infrastructure. The Information Technology Officer (ITO) writes computer programs, customizes our primary computer system configurations and is our Windows system administrator. The Electronic Systems

Analyst (ESA) supervises the ET staff, manages the telecommunication circuits, manages the baseline software used on our primary systems and is our UNIX system administrator. The ITO and ESA both assist the staff with computer issues. They also collaborate on the IT budget process, IT security and troubleshooting.

Our technical team is a cohesive unit that provides important support to the NWS mission of protecting life and property.



Picture of an Automated Surface Observation System (ASOS).

Lincoln NWS Joins the Facebook World

The National Weather Service has been in the process of creating Facebook pages for each of its offices. It initially established a national page last year, and beta-tested local pages at selected offices the last few months. The test has been expanded nationally, and most if not all NWS offices should have a Facebook presence by the end of May. The Lincoln office should have its Facebook page online by May 23.

The Facebook page will

be visible to people outside of the Facebook network, but in order to leave any comments, you must log into the page via a Facebook account.

Experimental local Facebook pages will serve as a supplemental channel to disseminate environmental information. Availability of this service is subject to constraints of Facebook service availability and to availability of users' internet service. Users should not rely on this service as the primary means of receiving alerts/

warnings of hazardous weather. NWS alerts/warnings are available on NOAA Weather Radio and on our official website: <http://www.weather.gov/>. Responses to users' posts are made on a time-available basis and may be limited, especially during periods of severe weather.

Our page (when activated) can be found by searching "US National Weather Service".

Groundhog Day Blizzard of February 1-2, 2011

by: Ed Shimon, Senior Meteorologist

Blizzards are considered the pinnacle of winter weather by many hardy Midwesterners, and Central Illinois had the opportunity to experience one this past Groundhog Day. As many as 5 days before it hit, forecasters in Lincoln were staring down the storm with cautious trepidation as to how bad it would be when it arrived. The forecast computer models showed several variations in the possible storm strength and track as the storm approached, but the main theme remained... "this was going to be a big one."

The storm did not disappoint those who followed the lead-up to the storm. A rare Blizzard Warning was issued for a large portion of central Illinois the day before the snow began to fly. However, snow was not the only weather hazard that was expected from the storm. Our forecasters had to decide where to put the heavy snow without blizzard winds, heavy sleet and heavy freezing rain. There typically are sharp cutoffs between heavy snow, sleet and freezing rain. Forecasting the locations of those transition zones is always some of the most challenging forecasting our meteorologists deal with during winter weather. This storm was no different.

When the storm finally blasted into central Illinois, thundersnow was reported at several locations the evening of Monday February 1. Snowfall rates of 2 to 3 inches per hour were recorded at several locations along and northwest of the

Interstate 55. Wind speeds in the blizzard topped out at 55 to 64 mph, with zero visibility for several hours during the overnight hours of February 1st into February 2nd. By the time the snow diminished on the morning of Groundhog Day, February 2nd, societal activity basically came to a halt across central Illinois, especially in the blizzard areas. School and business closings were the norm. Snowfall totals topped out at 20 inches in Abingdon with a majority of the blizzard warning area seeing 12 to 18 inches of snow. The track of the low ended up being favorable for an extended period of sleet accumulation in east central Illinois. Between 2 and 4 inches of sleet accumulated for many areas between I-72 and I-70. Other areas south of I-72 received significant ice accumulation from freezing rain of one half to three-quarters of an inch. Power outages were common due to the weight of ice on power lines and tree branches. During the storm, several NWS staff were stranded at the office and had to stay well beyond their shift times due to closed roads.

The affects of the storm lingered for several days, with snow removal and power company crews working overtime. Storms like this one may not show up again for several decades. In fact, this was one of the few blizzard warnings ever issued by the NWS Office in Lincoln IL over the past 16 years.

Every storm system provides a learning opportunity for every aspect of the NWS team, and this storm was no different. The NWS office in Lincoln stands ready for the next 'big one'.

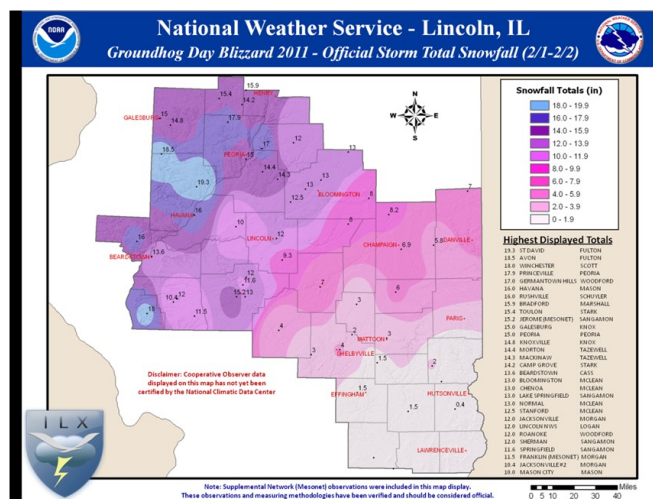


Figure 1: Total snowfall over central and southeast Illinois. Blue shades indicate snow totals of at least 18 inches, while the purple shades across the northwest half of the area are a foot or snow or higher.

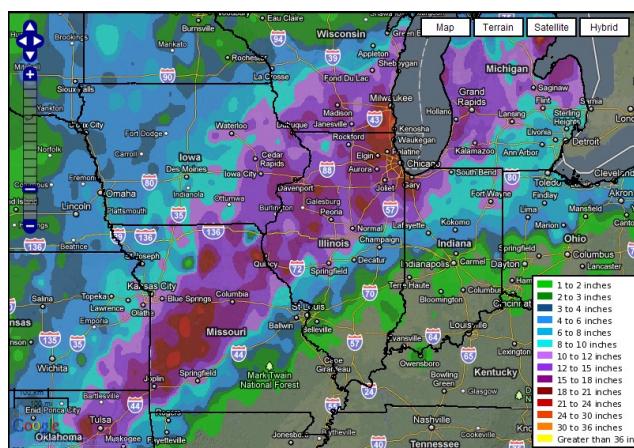


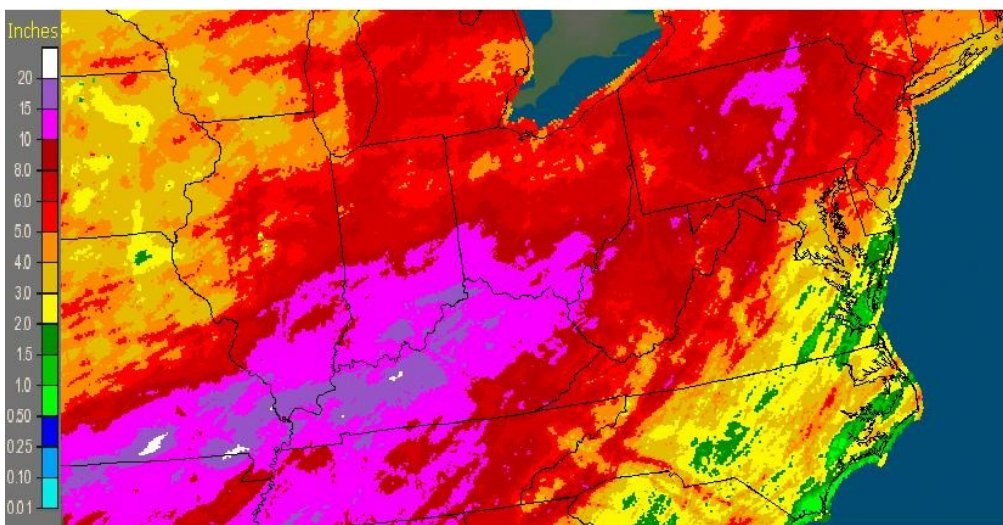
Figure 2: The scope of the storm is shown in this image, where snow totals of a foot or more (purple/red shades) extend from northern Oklahoma northeast into lower Michigan.

More details are available at:

<http://www.crh.noaa.gov/ilx/?n=01feb2011>

Wet April Sets Records in Many Areas

Ohio RFC Wilmington, OH: April, 2011 Monthly Observed Precipitation
Valid at 5/1/2011 1200 UTC- Created 5/3/11 21:37 UTC



A large part of the Midwest and Ohio Valley received copious amounts of rainfall during April. In the image above, areas shaded in pink received at least 10 inches of rain, with 15 or more inches along the Ohio River into southern Missouri (shown by purple shading). This combined with high water

coming down the Mississippi River from the north, where winter snow melt led to flooding earlier this spring. The result was record river stages in several areas.

The highest rain total reported in the Lincoln NWS coverage area was 13.74 inches at

Hutsonville (Crawford County). About a dozen stations located south of I-70 reported in excess of 10 inches of rain, including 13.31 inches at Olney (Richland County), 13.18 inches at Robinson (Crawford County), and 12.56 inches in Lawrenceville (Lawrence County).

**New Phone
Number for
Recorded
Forecasts:**

217-732-7321

eSpotter Program Update

by: Billy Ousley, Data Acquisition Program Manager

After last month's national eSpotter outage, there have been a number of issues/questions with the system over the past few weeks. I wanted to take a moment to clarify a few important points about eSpotter for our Significant Weather Observer Program (SWOP).

Passwords

Your password must be updated every 90 days. Once your password expires, it can be re-set by simply accessing the system as usual. A pop-up box should appear allowing you to change it. If the box does not appear, please ensure your computer's **pop-up blocker is disabled**.

If you still cannot access eSpotter, please e-mail us directly at nwslilix@noaa.gov. Clicking the "forgot your password" link will send an e-mail to the national eSpotter administrators, which may or may not make it back to us.*

Stability

The eSpotter system has obviously been unstable at times over the past couple of months, leading to both frustration and confusion. We apologize for the inconvenience, but urge you to continue using the system. Until a better/more efficient system is developed, eSpotter will continue to be the official method

for data collection within the SWOP program.

Clarity of Reports

Even though the eSpotter system automatically includes a time stamp, please provide as much detail as possible with your reports.

For example, don't say: "0.46 rainfall"

Instead, say: "0.46 rainfall from 8 AM to 3 PM" This lets us know the exact period the rainfall occurred, making it easier to accurately add up multi-day rainfall events.

Thanks again for your dedication to the SWOP program.

**eSpotter Web
Address:**

[http://
espotter.weather.gov](http://espotter.weather.gov)

Winter Climate Statistics (December 1 through February 28):

Peoria:

- Average temperature: 24.2° F (2° F below normal)
- Highest temperature: 64° F on February 17
- Lowest temperature: -9° F on February 10
- Total precipitation: 7.96" (2.39" above normal)
- Most in 24 hours: 1.89" on December 31
- Total snowfall: 52.5" (31.6" above normal)
- Most in 24 hours: 11.8" on February 1

Springfield:

- Average temperature: 27° F (1.7° F below normal)
- Highest temperature: 68° F on February 17
- Lowest temperature: -10° F on January 21
- Total precipitation: 5.43" (0.53" below normal)
- Most in 24 hours: 0.94" on February 1
- Total snowfall: 34.2" (15.3" above normal)
- Most in 24 hours: 8.6" on February 1

Lincoln:

- Average temperature: 24.5° F (2.7° F below normal)
- Highest temperature: 63° F on February 17
- Lowest temperature: -8° F on February 7
- Total precipitation: 5.38" (0.50" below normal)
- Most in 24 hours: 0.89" on December 31
- Total snowfall: 30.9" (14.8" above normal)
- Most in 24 hours: 9.7" on February 1

Peoria saw its snowiest winter on record. The 52.5 inches eclipsed the old record of 51.6 inches, set in the winter of 1978-79. For the 3-month period of December-February, the old record of 42.5 inches was also set during 1978-79.

Summer Outlook

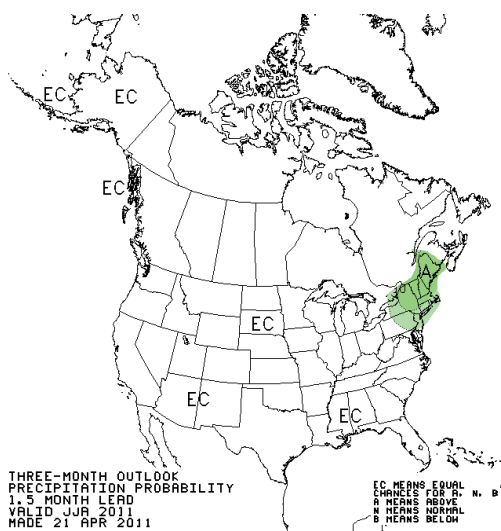
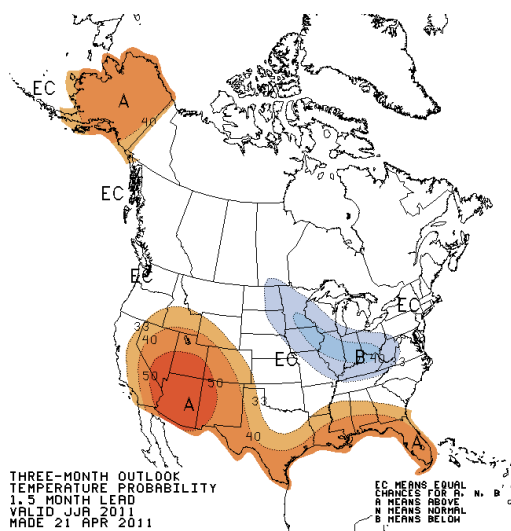
The latest outlooks from the Climate Prediction Center indicate that the summer has a higher than normal chance of seeing below normal temperatures (lower left image), from the upper Mississippi Valley southeast through the Ohio Valley. The southwest and

Gulf Coast regions are expected to trend above normal.

Precipitation trends (lower right image) are not clear across most of the country, with only the northeast U.S. trending wetter than normal. The remainder of the country

has equal chances of above, below, or near normal rainfall.

The La Nina pattern in the Pacific Ocean, which has been dominant the last several months, is expected to trend to neutral conditions by early summer.



April 25-28 Tornado Outbreak Statistics

Central Illinois Lincoln Logs

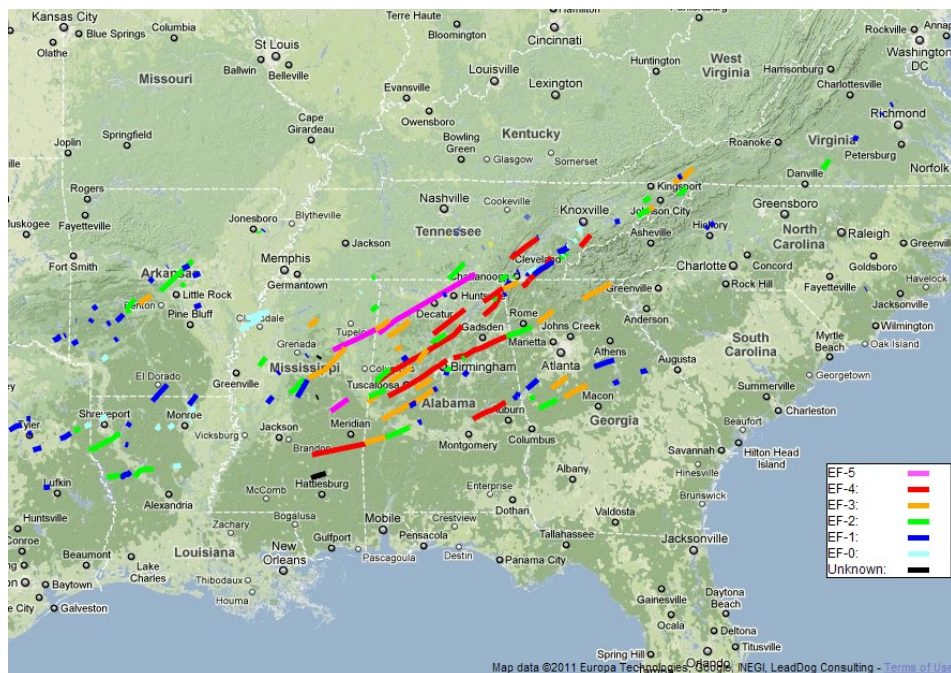
National Weather Service
1362 State Route 10
Lincoln, IL 62656

Phone: (217) 732-3089
(8:30 am to 4 pm)

The *Central Illinois Lincoln Logs* is a quarterly publication of the National Weather Service office in Lincoln, Illinois. It is available on our Internet page at

www.weather.gov/lincoln

Newsletter Editor:
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- Storm surveys and analyses as of May 9 indicated that the April 25-28 tornado outbreak in the southeast U.S. produced 305 tornadoes. The largest previous number of tornadoes on record for one event was 148, from April 3-4, 1974. Out of the estimated 305 tornadoes, 201 of them have had ground surveys conducted as of May 9. As such, the final number will likely be lower, as additional surveys may indicate several individual reports may actually be of the same tornado at different points along its track.
- Three of the tornadoes received an EF-5 rating, the highest value on the Enhanced Fujita Scale. Eleven others have been rated EF-4. (Numbers are subject to change as additional surveys are completed.)
- There were approximately 326 fatalities during the period from April 25-28, which is the deadliest tornado outbreak in 75 years (454 fatalities on April 5-6, 1936). Out of that total, 309 occurred in a 24 hour period, from 8 am April 27 to 8 am April 28th. This is the 5th deadliest tornado day on record in the U.S.
- Tornado fatalities by state: Alabama 236, Mississippi 35, Tennessee 31, Georgia 15, Virginia 5, Arkansas 4.
- The tornado that moved through Tuscaloosa and Birmingham, AL, killed at least 65 people. This was the highest death toll from a single tornado since May 25, 1955, when 80 people were killed in southern Kansas, mostly in the town of Udall. The all-time record from a single tornado is 695, on March 18, 1925 (Tri-State Tornado which affected parts of Missouri, Illinois, and Indiana).

Updated statistics will be posted on the following web page:

http://www.noaaneews.noaa.gov/april_2011_tornado_information.html